

Application No. 09/689,010
Amendment dated March 28, 2005
Reply to Office Action of December 28, 2004

REMARKS

Status Of Application

Claims 1-29 were pending in the application; the status of the claims is as follows:

Claims 9-29 were previously withdrawn from consideration.

Claims 6 and 7 are cancelled.

Claim 2 is objected to because of informalities.

Claim 1 is rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,908,112 to Pace ("Pace").

Claims 1 and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,599,503 to Manz et al. ("Manz").

Claims 1, 2, and 4 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,876,675 to Kennedy ("Kennedy").

Claims 1 and 8 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,917,606 to Kaltenbach ("Kaltenbach").

Claims 2-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Manz in view of U.S. Patent No. 5,296,375 to Kricka et al. ("Kricka").

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kennedy.

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kennedy in view of U.S. Patent No. 6,091,502 to Weigl et al. ("Weigl").

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kennedy in view of Anal. Chem. 1991 Publication *Three DNA Sequencing Methods Using*

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Capillary Gel Electrophoresis and Laser-Induced Fluorescence by Harold Swerdlow et al.
("Swerdlow").

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Pace in view of either Weigl or Swerdlow.

To date, no Notice of Draftsperson's Patent Drawing Review has been received. Applicant respectfully requests receipt of this document when it becomes available. Please note that the original drawings filed in the patent application are "formal" drawings.

Claim 1 has been amended to generally include the limitations of claims 6 and 7, and finds additional support in the specification on page 12, line 20 through page 13, line 23. These changes do not introduce any new matter.

Claim 2 has been amended to correct the objected to grammatical error in line 4 by changing the word "oppose" to "opposed."

35 U.S.C. § 102(b) Rejections

The rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Pace is respectfully traversed based on the following.

Claim 1 includes the limitation of deflecting elements (first and second electrodes) for approximating the object in the channel to the optical element. The first electrode faces the channel at the vicinity of the optical element, while the second electrode is opposite the first electrode and located upstream of the optical element. By applying a predetermined electric field between the electrodes, an object can be approximated to the optical element. As noted in the specification beginning on page 12, line 20 through page 13, line 23, in the preferred embodiment, the electric field causes the object to approximate the optical element either through electrophoresis or dielectric phoresis.

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In contrast, Pace does not disclose deflecting elements for approximating an object to an optical element. Pace discloses a series of electrodes, but Pace does not disclose that the electrodes are in the configuration required by claim 1, nor does Pace disclose that an object can be approximated to an optical element by applying a predetermined electric field between the electrodes. The electrodes disclosed by Pace are sequential, *see* Figs. 2 and 4, and completely encircle the channel, *see* Fig. 3, and thus cannot be opposite one another as required by claim 1. Further, because Pace's electrodes are sequential, applying a field between them causes an object to be swept down the length of the channel, *see* column 9, lines 20-37. This is in contrast to claim 1, in which application of a predetermined field between the electrodes causes the object to be approximated to the optical element. In other words, the object is deflected perpendicular to the length of the channel, not along the length of the channel as disclosed in Pace. Thus, for at least these two reasons, Pace does not disclose each limitation of claim 1 and therefore cannot anticipate claim 1.

Accordingly, it is respectfully requested that the rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Pace, be reconsidered and withdrawn.

The rejection of claims 1 and 8 under 35 U.S.C. § 102(b) as being anticipated by Manz is respectfully traversed based on the following.

Manz fails to disclose any type of electrodes, let alone two electrodes having the configuration required by claim 1 such that by applying an electric field therebetween an object is approximated to an optical element. Because Manz does not disclose at least these limitations of claim 1, Manz cannot anticipate claim 1. Claim 8 depends from claim 1. As Manz fails to anticipate claim 1, Manz fails to anticipate claim 8 for at least the same reasons.

Accordingly, it is respectfully requested that the rejection of claims 1 and 8 under 35 U.S.C. § 102(b) as being anticipated by Manz, be reconsidered and withdrawn.

35 U.S.C. § 102(e) Rejections

The rejection of claims 1, 2, and 4 under 35 U.S.C. § 102(e) as being anticipated by Kennedy, is respectfully traversed based on the following.

Kennedy discloses the use of electrokinetic material transport for directing material flow. As disclosed in column 6, lines 29-38, by applying a voltage gradient between terminals, fluid can be drawn or forced from one location to another along the length an intervening channel. Thus, Kennedy's electrokinetic material transport technique, like Pace's transport technique uses electrodes to move material down the length of a channel. Therefore, while Kennedy discloses electrodes, they are not located in the relative positions required by claim 1. Furthermore, application of a predetermined field between Kennedy's electrodes causes motion of an object down the length of the channel, not toward an optical element as required by claim 1. Thus, Kennedy, for at least these two reasons does not anticipate claim 1. Claims 2 and 4 depend from claim 1. As Kennedy fails to anticipate claim 1, Kennedy fails to anticipate claims 2 and 4 for at least the same reasons.

Accordingly, it is respectfully requested that the rejection of claims 1, 2, and 4 under 35 U.S.C. § 102(e) as being anticipated by Kennedy, be reconsidered and withdrawn.

The rejection of claims 1 and 8 under 35 U.S.C. § 102(e) as being anticipated by Kaltenbach is respectfully traversed based on the following.

Kaltenbach fails to disclose any type of electrodes, let alone two electrodes having the configuration required by claim 1 such that by applying an electric field therebetween an object is approximated to an optical element. Because Kaltenbach does not disclose at least these limitations of claim 1, Kaltenbach cannot anticipate claim 1. Claim 8 depends from claim 1. As Kaltenbach fails to anticipate claim 1, Kaltenbach fails to anticipate claim 8 for at least the same reasons.

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Accordingly, it is respectfully requested that the rejection of claims 1 and 8 under 35 U.S.C. § 102(e) as being anticipated by Kaltenbach, be reconsidered and withdrawn.

35 U.S.C. § 103(a) Rejections

The rejection of claims 2-4 under 35 U.S.C. § 103(a), as being unpatentable over Manz, in view of Kricka is respectfully traversed based on the following.

As shown above, Manz fails to disclose any type of electrodes, let alone two electrodes having the configuration required by claim 1 such that by applying an electric field therebetween an object is approximated to an optical element. Kricka similarly fails to disclose any type of electrodes, let alone two electrodes having the configuration required by claim 1 such that by applying an electric field therebetween an object is approximated to an optical element. Because the combination of Manz and Kricka does not disclose or suggest at least these limitations of claim 1, the combination of Manz and Kricka cannot render claim 1 obvious. Claims 2-4 depend from claim 1. As the combination of Manz and Kricka fails to render claim 1 obvious, the combination of Manz and Kricka fails to render claims 2-4 obvious for at least the same reasons.

Accordingly, it is respectfully requested that the rejection of claims 2-4 under 35 U.S.C. § 103(a) as being unpatentable over Manz, in view of Kricka, be reconsidered and withdrawn.

The rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Kennedy is respectfully traversed based on the following.

As shown above, Kennedy fails to disclose two electrodes having the configuration required by claim 1 such that by applying an electric field therebetween an object is approximated to an optical element. For these reasons, Kennedy fails to anticipate claim 1. Claim 3 depends from claim 1. As Kennedy fails to anticipate claim 1, Kennedy fails to render claim 3 obvious for at least the same reasons.

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Accordingly, it is respectfully requested that the rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Kennedy, be reconsidered and withdrawn.

The rejection of claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Kennedy patent in view of Weigl is respectfully traversed based on the following.

As shown above, Kennedy fails to disclose two electrodes having the configuration required by claim 1 such that by applying an electric field therebetween an object is approximated to an optical element. For these reasons, Kennedy fails to anticipate claim 1. Weigl fails to disclose any type of electrodes, let alone two electrodes having the configuration required by claim 1 such that by applying an electric field therebetween an object is approximated to an optical element. Because the combination of Kennedy and Weigl does not disclose or suggest at least these limitations of claim 1, the combination of Kennedy and Weigl cannot render claim 1 obvious. Claim 5 depends from claim 1. As the combination of Kennedy and Weigl fails to render claim 1 obvious, the combination of Kennedy and Weigl fails to render claim 5 obvious for at least the same reasons.

Accordingly, it is respectfully requested that the rejection of claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Kennedy in view of Weigl, be reconsidered and withdrawn.

The rejection of claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Kennedy in view of Swerdlow is respectfully traversed based on the following.

As shown above, Kennedy fails to disclose two electrodes having the configuration required by claim 1 such that by applying an electric field therebetween an object is approximated to an optical element. For these reasons, Kennedy fails to anticipate claim 1. While Swerdlow discloses samples being "injected" at a given electric field, there is no disclosure regarding the configuration of the electrodes that generated this electric field. Because Swerdlow does not disclose the configuration of the electrodes, there can be no disclosure that the electrodes are configured as required by claim 1 such that by applying

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an electric field therebetween an object is approximated to an optical element. Because the combination of Kennedy and Swerdlow does not disclose or suggest at least these limitations of claim 1, the combination of Kennedy and Swerdlow cannot render claim 1 obvious. Claim 5 depends from claim 1. As the combination of Kennedy and Swerdlow fails to render claim 1 obvious, the combination of Kennedy and Swerdlow fails to render claim 5 obvious for at least the same reasons.

Accordingly, it is respectfully requested that the rejection of claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Kennedy in view of Swerdlow, be reconsidered and withdrawn.

The rejection of claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Pace in view of either Weigl or Swerdlow is respectfully traversed based on the following.

As shown above, Pace fails to disclose deflecting elements comprising two electrodes such that by applying an electric field therebetween an object is approximated to an optical element. For this reason, Pace fails to anticipate claim 1. As shown above, Weigl and Swerdlow similarly fail to disclose electrodes having a configuration such that by applying an electric field therebetween an object is approximated to an optical element. Because the combination of Pace, Weigl, and Swerdlow does not disclose or suggest at least this limitation of claim 1, the combination of Pace, Weigl, and Swerdlow cannot render claim 1 obvious. Claim 5 depends from claim 1. As the combination of Pace, Weigl, and Swerdlow fails to render claim 1 obvious, the combination of Pace, Weigl, and Swerdlow fails to render claim 5 obvious for at least the same reasons.

Accordingly, it is respectfully requested that the rejection of claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Pace in view of either Weigl or Swerdlow, be reconsidered and withdrawn.

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CONCLUSION

In view of the foregoing, this application is considered to be in condition for allowance, and an early reconsideration and a Notice of Allowance are respectfully requested.

This Response does not increase the number of independent claims, does not increase the total number of claims, and does not present any multiple dependency claims beyond the number of claims originally paid for. Accordingly, no fee based on the number or type of claims is currently due. If an extension of time is required to enable this document to be timely filed and there is no separate Petition for Extension of Time filed herewith, this document is to be construed as also constituting a Petition for Extension of Time Under 37 C.F.R. § 1.136(a) for a period of time sufficient to enable this document to be timely filed. Any fee required for such a Petition for Extension of Time or any other fee required by this response, including any fee pursuant to 37 C.F.R. §§ 1.16 and 1.17, other than the issue fee, and not submitted herewith should be charged to Sidley Austin Brown & Wood LLP's Deposit Account No. 18-1260. Any refund should be credited to the same account.

Respectfully submitted,

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